



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/828,744

04/20/2004

Tracy E. Grim

GRIM3001

5476

23364 7590 04/04/2007  
BACON & THOMAS, PLLC  
625 SLATERS LANE  
FOURTH FLOOR  
ALEXANDRIA, VA 22314

EXAMINER

PHAM, HUONG Q

ART UNIT

PAPER NUMBER

3772

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

04/04/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

**Application No.**

10/828,744

**Applicant(s)**

GRIM ET AL.

**Examiner**

Huong Q. Pham

**Art Unit**

3772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.  
4a) Of the above claim(s) 1-5, 30-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-29, 40-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 9/22/2006.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6- 9, 11-27, 29, 40-42, 44, 46-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Darcey (6,106,492) in view of Parker et al ( 5,755,678) and Ferguson et al ( 6,042,557).

Regarding claim 6, Darcey discloses a splint comprising: an elongated blank (14) impregnated with hardenable material, primary tacking arrangements (26) which are capable of holding the blank in place to allow adjustment of the blank, and secondary holding arrangements for functionally securing the blank (Figure 11) whereby the splint can be easily and properly mounted. Darcey does not specify that the primary tacking arrangements are made of a stretchable material.

Parker et al teaches the use of an elastic strap 124 ( figure 18) to hold the splint onto the body.

Ferguson et al teaches a primary tacking arrangements which are non-rectangular in shape for holding a blank in place having opposed end portions, and

hook type patches secured on opposed end portions , and loops 40 on cover 32 ( figure 9).

In view of these teachings of Parker et al and Ferguson et al , it would have been obvious to one skilled in the art at the time the invention was made to provide the splint disclosed by Darcey with non-rectangular primary tacking arrangements which are made of an elastic material, as taught by Parker et al., and with hook type patches in order to provide adjustability of the locations of the primary tacking arrangement and to provide more comfort to the user. Note that this type of primary tacking arrangement is very well-known in the art.

Regarding claim 7, the blank of Darcey is of longitudinal extent and has laterally extending extensions creating the tacking arrangements (Figure 9). Regarding claims 8 and 9, the blank of Darcey has a covering of hook receivable material (16) and the primary tacking arrangements are provided with a hook and loop type construction (32 and 28). Regarding claim 14, the secondary holding arrangements comprise an exo-skeletal structure overlying the blank. Regarding claim 18, the primary tacking arrangements are removable and repositionable with respect to the splint. Regarding claim 20, the blank has a padding layer on at least one side (20). Regarding claim 21, the secondary holding arrangements include a resilient, flexible, stretchable tape (34). Regarding claim 25, note the rejection of claim 6. Regarding claim 26, note the rejection of claim 8.

Regarding claims 40-42, 44, and 46, Darcey discloses a splint comprising: an elongated blank (14) impregnated with hardenable material, at least one layer of additional non-impregnated material on at least one side of the blank (20), laterally extending primary tacking arrangements (26), and secondary holding arrangements for functionally securing the blank (Figure 11). The additional layer is a padding material (column 5, lines 59-65). One side of the blank is covered with a padding material (20) and the other with a hook receivable material (16, fabric is a hook receivable material) and the primary tacking arrangements are provided with a hook type construction thereon (32). The hook receivable material is UBL fabric (16), and the blank is formed of multiple layers of casting material (24). Darcey does not disclose a blank that is in roll form. Parker et al. disclose a splint comprising: an elongate blank (10) in roll form (Figure 1) impregnated with a hardenable material, at least one layer of additional non-impregnated material (18), and secondary holding arrangements (Figure 10) for functionally securing the blank in place. The additional layer is a padding material (column 7, lines 37-42), and said blank is formed of multiple layers of casting material (16). Parker et al. specify that the splint be in roll form so that it can be dispensed in used-determined lengths suitable for any given medical use. It would have been obvious to one skilled in the art at the time the invention was made to have provided the splint disclosed by Darcey wherein the blank is in roll form, as taught by Parker et al., so that it can be dispensed in used-determined lengths suitable for any given medical use.

Claims 10, 28, 43, 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Darcey in view of in view of Parker et al ( 5,755,678) and Ferguson et al ( 6,042,557), and further in view of Grim et al ( 6,139,513).

Note the comments above for the teachings of Darcey ,Parker et al and Ferguson et al .

Darcey does not disclose a splint wherein the blank is formed of double knit spacer material, and the tacking arrangements are non-rectangular in shape.

Grim et al. disclose a splint comprising an elongated blank with hardenable material (202), at least one layer of additional non-impregnated material (30 and 32), and laterally extending primary tacking arrangements for holding said blank in place (204). Grim et al. further disclose a splint wherein a the blank is formed of double knit spacer material (28), and the tacking arrangements are non-rectangular in shape (204). Grim et al. specifies that the use of double knit type material improve the control of the flow of water to the curable resin and provide desired strength for the product.

It would have been obvious to one skilled in the art at the time the invention was made to have provided the splint disclosed by Darcey having padding material of double knit fabric, a blank of double knit spacer material, as taught by Grim et al., to improve the control of the flow of water to the curable resin and provide desired strength for the product.

***Response to Arguments***

Applicant's arguments filed on 12/5/2006 with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. Note the comments relative to the claims above.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huong Q. Pham whose telephone number is (571) 272-4980. The examiner can normally be reached on 8:45 AM - 5:15 PM.

Art Unit: 3772

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco can be reached on ( 571) 272 - 4940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

March 29, 2007

  
PATRICIA BIANCO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700  
3/30/07